

REMARKS

Applicants appreciate the Examiner's allowance of Claims 58-73, 77-80, 84-87 and 91-94. Applicants will now address the Examiner's remaining rejection.

Claim Rejections - 35 USC §103

In the Office Action, the Examiner continues to reject Claims 46-57, 74-67[sic 76], 81-83 and 88-90 under 35 USC §103(a) as being unpatentable over Hemsath et al. This rejection is respectfully traversed.

In particular, Hemsath teaches a thermal treating apparatus having recirculation pleum 30, blower 33, thermal control mechanisms 34, and chemical control mechanisms 35. Hemsath also teaches the use of a heater and cooler. Further, Hemsath teaches the use of an oxygen containing gas which may be introduced to obtain an oxidizing environment, or a hydrogen containing gas which may be introduced to obtain a reducing environment.

While Applicants traverse this rejection, in order to advance the prosecution of this application, independent Claim 46 has been amended to recite "so that the gas is provided to the substrate from an upside of a surface of the substrate". It is respectfully submitted that Hemsath does not disclose or suggest this feature.

With regard to independent Claims 50 and 54, while the rejection of these claims is also traversed, these claims have been amended to recite "wherein said heat generating means is covered with said heat absorber". It is respectfully submitted that Hemsath does not disclose or suggest this feature.

With regard to dependent claims 47, 51, and 55, Hemsath also fails to teach “wherein said gas is selected from nitrogen and rare gases”. With regard to dependent claims 81-87, Hemsath fails to teach “wherein the gas flows in a direction perpendicular to the substrate to be processed”. With regard to dependent claims 88-94, Hemsath fails to teach “making the gas flow through pores of an orifice plate over the substrate”.

Therefore, for at least the above-stated reasons, the rejected claims are clearly distinguishable over Hemsath. Hence, it is respectfully requested that this rejection be withdrawn.

New Claims

Applicants are adding new dependent Claims 95-107. These claims are allowable over Hemsath for at least the same reasons as the independent claims.

Please charge our deposit account 50/1039 for any fee due for these new claims.

Conclusion

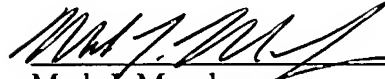
Accordingly, the present application is in a condition for allowance and should be allowed.

Please charge our Deposit Account No. 50-1039 for any fee due for this amendment.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

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